In the Claims:

Please amend claims 1, 6, 8, 14, 21, 27, and 33 as follows:

1. (Amended) A method for training a system to inspect a spatially distorted pattern, the method comprising:

receiving a digitized image of an object, the digitized image including a region of interest;

dividing the region of interest in its entirety into a plurality of sub-regions, a size of each of the sub-regions being small enough such that a conventional inspecting method can reliably inspect each of the sub-regions;

training a search tool and an inspection tool for a respective model for each of the plurality of sub-regions;

building a single search tree for determining an order for inspecting each sub-region of the plurality of sub-regions at a run-time; and

training a coarse alignment tool for the region of interest in its entirety.

6. (Amended) A method for inspecting a spatially distorted pattern, the method comprising:

running a coarse alignment tool to approximately locate the pattern;

using search tree information and an approximate location of a root sub-region, found by the coarse alignment tool, to locate a plurality of sub-regions sequentially in an order according to the search tree information, each of the sub-regions being of a size small enough such that a conventional inspecting method can reliably inspect each of the sub-regions using respective models;

inspecting each of the sub-regions so as to produce a difference image for each of the sub-regions.

8. (Amended) The method of claim 6, wherein:

the inspecting produces a match image for each of the sub-regions, the method further comprising:

combining the difference images for each of the sub-regions into a single difference image; and

combining the match images for each of the sub-regions into a single match image.

14. (Amended) An apparatus for inspecting a spatially distorted pattern, the apparatus comprising:

a memory for storing a digitized image of an object;

a region divider for dividing the digitized image of a region of interest in its entirety into a plurality of sub-regions, a size of each of the sub-regions being small enough such that a conventional inspecting method can reliably inspect each of the sub-regions;

a coarse alignment mechanism for approximately locating the pattern;

a search mechanism for locating each of the sub-regions sequentially in an order based on a single search tree; and

an inspector for inspecting each of the sub-regions.

21. (Amended) An apparatus for inspecting a spatially distorted pattern, the apparatus comprising:

a storage for storing a digitized image of an object, the digitized image including a region of interest;

a region divider for dividing the region of interest in its entirety into a plurality of sub-regions, a size of each of the sub-regions being small enough such that a conventional inspecting method can reliably inspect each of the sub-regions;

a trainer for training a respective model for a search tool and for an inspection tool for each of the plurality of sub-regions;

a search tree builder for building a single search tree for determining an order for inspecting each sub-region of the plurality of sub-regions at a run time;

a course alignment trainer;

a course alignment mechanism for approximately locating the pattern, the coarse alignment mechanism being configured to be trained by the coarse alignment trainer;

a search mechanism for locating each of the sub-regions sequentially in an order based on the search tree, a root sub-region being provided by the coarse alignment mechanism; and

an inspector for inspecting each of the sub-regions.

27. (Amended) A medium having a stored therein machine-readable information, such that when the machine-readable information is read into a memory of a computer and executed, the machine-readable information causes the computer:

to receive a digitized image of an object, the digitized image including a region of interest;

to divide the region of interest in its entirety into a plurality of sub-regions, a size of each of the sub-regions being small enough such that a conventional inspecting method can reliably inspect each of the sub-regions;

to train a respective model for a search tool and for an inspection tool for each of the plurality of sub-regions;

to build a single search tree for determining an order for inspecting the plurality of sub-regions at a run-time; and

to train a respective model for a coarse alignment tool.

33. (Amended) The method of claim 6, further comprising:

dividing one of the sub-regions into a plurality of smaller sub-regions when the one of the sub-regions cannot be located using a search tool.